

2. $14d - 2 = 19d + 33$

$$3. \quad 3 = \frac{1}{5} c - 9$$

$$4. \quad \frac{7}{-19} = \frac{-}{4} m + 19$$

$$3 \overline{) 48} \begin{array}{r} 16 \\ 3 \\ \hline 18 \end{array}$$

$$4. \quad 7 = \frac{3}{4}m + 19$$

$$-16 = \frac{4}{3} \quad -12 = \frac{4}{3} \quad -16 = m$$

Solving Equations with The DISTRIBUTIVE PROPERTY!!

Let's get the ALGEBRA PARTY started!!

Let's learn the **DISTRIBUTIVE PROPERTY FIRST!**

1. $6(y + 7)$

$$6y + 42$$

2. $5(6t + 4)$

$$30t + 20$$

3. $2(7u - 9)$

$$14u - 18$$

$$14u + -18$$

4. $-10(4 + 5t)$

$$-40 + 50t$$

NOW let's combine the DISTRIBUTIVE PROPERTY with SOLVING EQUATIONS!

HINT: Distribute FIRST! Then solve the 2-step equation!

5. $7(2x - 4) = 28$

$$\begin{array}{r|l}
 14x - 28 & = 28 \\
 +28 & +28 \\
 \hline
 14x & = 56 \\
 \hline
 14 & 14 \\
 x & = 4
 \end{array}$$

6. $6(3x + 11) = 30$

$$\begin{array}{r|l}
 18x + 66 & = 30 \\
 -66 & -66 \\
 \hline
 18x & = -36 \\
 \hline
 18 & 18 \\
 \hline
 x & = -2
 \end{array}$$

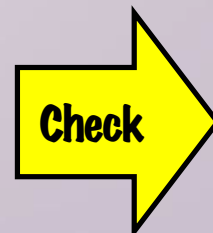
7. $8z = 3(z + 5)$

8. $9y = 2(y + 7)$

Try this on your own!

10. $3(e + 8) = 7e$

11. $7(2w - 4) = 28$



CHALLENGE!

HINT: DISTRIBUTE first. Then solve the equation with variable on both sides of the equal sign!

12. $4(8 - 5r) = -2r - 4$

13. $6(5 - 3y) = -4y - 12$

$$\begin{array}{r}
 30 - 18y - 4y = -12 \\
 -30 \quad -30 \\
 \hline
 -18y \quad -4y \\
 +4y \quad +4y \\
 \hline
 -14y \quad -12 \\
 -14y \quad -14y \\
 \hline
 y \quad 1 = 3
 \end{array}$$

HOMEWORK TIME!